DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-011709 Address: 333 Burma Road **Date Inspected:** 30-Jan-2010

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Mr.Wuzhi Chang No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

Bridge No: 34-0006 **Component:** Orthotropic Box Girder (OBG)

Summary of Items Observed:

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG TRIAL ASSEMBLY

This QA Inspector observed the following work in progress:

SEGMENT: 7BE-7CE

Flux Cored Arc Welding (FCAW) welding of weld joint OBE7C-009. Welder is identified as 220067. ZPMC Quality Control (QC) is identified as Mr. Zhang Sheng Jun. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2133T.

SEGMENT: 7BE-7CE

Flux Cored Arc Welding (FCAW) welding of weld joint OBE7C-010. Welder is identified as 067949. ZPMC Quality Control (QC) is identified as Mr. Zhang Sheng Jun. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2133T.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

SEGMENT: 6AE-6BE

Shielded Metal Arc Welding (SMAW) welding of Repair weld joint CA028-002. Welder is identified as 066261. ZPMC Quality Control (QC) is identified as Mr. Chang Yong Gang. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-345-SMAW-4G (4F)-FCM-Repair-1 and Critical Welding Repair Report (CWR) No: B-CWR-1137.

SEGMENT: 6AE-6BE

Shielded Metal Arc Welding (SMAW) welding of Repair weld joint CA014-001. Welder is identified as 067656. ZPMC Quality Control (QC) is identified as Mr. Chang Yong Gang. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-345-SMAW-4G (4F)-FCM-Repair-1 and Critical Welding Repair Report (CWR) No: B-CWR-1136.

SEGMENT: 6AW-6AW

Shielded Metal Arc Welding (SMAW) welding of Repair weld joint OBW6-001. Welder is identified as 048659. ZPMC Quality Control (QC) is identified as Mr. Wang jian. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-345-SMAW-3G (3F)-FCM-Repair-1 and Critical Welding Repair Report (CWR) No: B-CWR-1140.

During random in process visual inspection this Caltrans Quality Assurance Inspector (QA) observed the following issue:

- -ZPMC CWI/QC was not present during the welding process from 17:40 to 18:30 hours.
- -No approved welding procedure specification (WPS) or Critical Weld Repair (CWR) was onsite during the weld repair process.
- -This weld joins the Side Plate (SP752B) to the Longitudinal Diaphragm (LD10A).
- -This weld is located at Segment 6AW in between panel points (PP) 40 and PP41 on the Cross Beam side.
- -This weld is detail as a fillet weld on the approved drawing SEG27F.
- -This weld is identified as SEG27F-035.
- -Segment 6AW is located outside in the Trial Assembly area.

Applicable reference:

Caltrans Special Provision Section 8-3.01; "QC inspections shall be provided to ensure continuous inspection when any welding is being performed. Continuous inspection, as a minimum, shall include (1) having QC Inspectors continually present on the shop floor or project site when any welding operation is being performed, and (2) having a QC Inspector within such close proximity of all welders or operators so that inspections by the QC Inspector of each operation, at each welding location, shall not lapse for a period exceeding 30 minutes."

This QA notified ZPMC QC identified as Mr. Wuzhi Chang and ABF inspector identified as Mr. Ding of the above issue and that an incident report will be generated.

For additional information, please see the attached pictures below.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

documents.





Summary of Conversations:

Only general conversation was held between QA and Quality Control (QC) concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Prabhu,Surendra	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer